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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,600

01/21/2004

Ichiro Matsuyama

1232-5255

5048

27123 7590 07/23/2007
MORGAN & FINNEGAN, L.L.P.
3 WORLD FINANCIAL CENTER
NEW YORK, NY 10281-2101

EXAMINER

UHLENHAKE, JASON S

ART UNIT	PAPER NUMBER
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2853

MAIL DATE	DELIVERY MODE
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07/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/762,600	Applicant(s) MATSUYAMA, ICHIRO	
	Examiner Jason Uhlenhake	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 36-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 36-41, it is not clear what is meant by "gross paper" since there is no clarifications or definitions in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26,29,30,32,34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irizawa et al (U.S. Pub. 2003/0085956) in view of Ohtsuka et al (U.S. Pat. 6,145,950), and Hayashi (JP 11001647A).

Irizawa discloses:

- ***regarding claims 26, 29, 30, 32, 34-35***, a printing apparatus capable of printing an image on a plurality of types of printing media by selectively using a plurality of types of inks including a pigment ink and dye ink (Paragraphs 0013, 0017, 0024,

0043); a discrimination portion for discrimination whether the type of said ink used for printing the image is said pigment ink or said dye ink (Paragraphs 0013, 0017, 0024, 0043)

- ***further regarding claims 26, 29, 30, 32, 34-35***, a storage portion for storing information indicating applicability relations between different types of inks and different types of printing media, a printing medium having the applicability relation with said pigment ink but not having the applicability relation with said dye ink, and printing medium having the applicability relation with said dye ink but not having the applicability relation with said pigment ink (Paragraphs 0013, 0024, 0079, 0087)

Irizawa does not disclose expressly the following:

- ***regarding claims 26, 29, 30, 32, 34-35***, type of printing media including a printing medium having the applicability relations with both pigment and dye ink; a display portion displaying a plurality of types of printing media
 - display control means for controlling display portion, on the basis of information indicating the type of said inks discriminated by discrimination portion and information stored in storage portion, to display the type of printing medium having the applicability relation with the type of ink discriminated by discrimination portion
 - a selection portion for selecting, from among two or more types of printing media displayed by display portion, the type of said printing medium received at the receiving portion there by validating the received paper as said printing medium to be used for printing; displaying reference information for selecting the printing medium on

Art Unit: 2853

which the image is printed on the basis of the type of ink discriminated by the discriminating step;

- two or more types of printing media are displayed which having the applicability relation with the type of ink discriminated by discrimination portion, and the type of printing medium is not displayed which having no applicability relation with the type of ink discriminated by discrimination portion

Hayashi discloses:

- ***regarding claims 26, 29, 30, 32, 34-35***, type of printing media including a printing medium having the applicability relations with both pigment and dye ink; a display portion displaying a plurality of types of printing media (Abstract), for the purpose of realizing a good image on both plain paper and a recording medium for only ink jet recording

Ohtsuka discloses:

- ***regarding claims 26, 29, 30, 32, 34-35***, a display portion displaying a plurality of types of printing media (Column 20, Lines 39-52; Column 21, Lines 7-1); display control means for controlling display portion, on the basis of information indicating the type of said inks discriminated by discrimination portion and information stored in storage portion, to display the type of printing medium having the applicability relation with the type of ink discriminated by discrimination portion (Column 20, Lines 39-52; Column 21, Lines –13), for the purpose of reducing errors in the selection process by the user.

- a selection portion for selecting, from among two or more types of printing media displayed by display portion, the type of said printing medium received at the receiving portion there by validating the received paper as said printing medium to be used for printing; displaying reference information for selecting the printing medium on which the image is printed on the basis of the type of ink discriminated by the discriminating step (Column 4, Lines 22-38; Column 20, Lines 39-52; Column 21, Lines 7-30), for the purpose of selecting an appropriate combination of a type of output image, ink and a print medium

- two or more types of printing media are displayed which having the applicability relation with the type of ink discriminated by discrimination portion, and the type of printing medium is not displayed which having no applicability relation with the type of ink discriminated by discrimination portion (Column 4, Lines 22-38; Column 20, Lines 39-52; Column 21, Lines 7-13), for the purpose of selecting an appropriate combination of a type of output image, ink and a print medium

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Ohtsuka and Hayashi into the device of Irizawa, for the purpose of realizing a good image on both plain paper and a recording medium for only ink jet recording and selecting an appropriate combination of a type of output image, ink and a print medium

Claims 27, 31, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irizawa et al (U.S. Pub. 2003/0085956) in view of Ohtsuka et al (U.S. Pat. 6,145,950), and Mizutani (U.S. Pat. 5,774,146).

Irizawa discloses:

- ***regarding claims 27, 31, 33***, a discrimination portion for discriminating the type of said printing material used for printing of the image (Paragraphs 0017, 0043); a storage portion for storing information indicating applicability relations between different types of said printing materials and different types of said printing media (Paragraph 0079)

Irizawa does not disclose expressly the following:

- ***regarding claims 27, 31, 33***, a display portion for displaying all the types of printing media useable in printing apparatus; displaying reference information for selecting the printing medium on which the image is printed on the basis of the type of ink discriminated by the discriminating step
 - a selection portion for selecting, from the plurality of types of printing media displayed by display portion, the type of printing medium used for printing
 - warning means for issuing a warning when the type of said printing medium selected by said selection portion does not have the applicability relation stored in said storage portion with the types of said printing material discriminated by the discrimination portion
 - determining means for determining the type of the printing medium, as a printing medium to be used for the printing

Ohtsuka discloses:

- ***regarding claims 27, 31, 33***, a display portion for displaying all the types of printing media useable in printing apparatus (Column 20, Lines 39-52; Column 21, Lines 7-13); displaying reference information for selecting the printing medium on which the image is printed on the basis of the type of ink discriminated by the discriminating step (Column 4, Lines 22 – 38; Column 20, Lines 39 – 52; Column 21, Lines 7 – 13),
- a selection portion for selecting, from the plurality of types of printing media displayed by display portion, the type of printing medium used for printing (Column 4, Lines 22-38; Column 20, Lines 39-52; Column 21, Lines 7-13), for the purpose of selecting an appropriate combination of a type of output image, ink and a print medium.
- warning means for issuing a warning when the type of said printing medium selected by said selection portion does not have the applicability relation stored in said storage portion with the types of said printing material discriminated by the discrimination portion (Column 3, Lines 63-67), for the purpose of selecting an appropriate combination of a type of output image, ink and a print medium

Mizutani discloses:

- ***regarding claims 27, 31, 33***, determining means (Figure 2, D) for determining the type of the printing medium, as a printing medium to be used for the printing (Abstract; Column 2, Lines 37-50), for the purpose of producing a print output of a high contrast and high color reproducibility onto any kind of print papers.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Ohtsuka and Mizutani into the device of Irizawa, for the purpose of selecting an appropriate combination of a type of output image, ink and a print medium and producing a print output of a high contrast and high color reproducibility onto any kind of print papers.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Irizawa et al (U.S. Pub. 2003/0085956) in view of Ohtsuka et al (U.S. Pat. 6,145,950), Mizutani (U.S. Pat. 5,774,146), and Hayashi (JP 11001647A).

Irizawa discloses:

- ***regarding claim 28***, information processing apparatus connect to a printing apparatus capable of printing an image on a plurality of types of printing medium by selectively using a plurality of types of inks including a pigment ink and a dye ink (Paragraphs 0013, 0017, 0024, 0043, 0142)
- an input portion for inputting the type of ink used by the printing apparatus (Abstract, Paragraph 0079)
- a storage portion for storing information indicating applicability relations between different types of inks and different types of printing media, a printing medium having the applicability relation with said pigment ink but not having the applicability relation with said dye ink, and printing medium having the applicability relation with said dye ink but not having the applicability relation with said pigment ink (Paragraphs 0013, 0024, 0079, 0087)

Irizawa does not disclose expressly the following:

- ***regarding claim 28***, type of printing media including a printing medium having the applicability relations with both pigment and dye ink; a display portion displaying a plurality of types of printing media
a display portion for displaying all the types of printing media useable in printing apparatus; displaying reference information for selecting the printing medium on which the image is printed on the basis of the type of ink discriminated by the discriminating step
- a selection portion for selecting, from the plurality of types of printing media displayed by display portion, the type of printing medium used for printing
- warning means for issuing a warning when the type of said printing medium selected by said selection portion does not have the applicability relation stored in said storage portion with the types of said printing material discriminated by the discrimination portion
- determining means for determining the type of the printing medium, as a printing medium to be used for the printing

Hayashi discloses:

- ***regarding claim 28***, type of printing media including a printing medium having the applicability relations with both pigment and dye ink; a display portion displaying a plurality of types of printing media (Abstract), for the purpose of realizing a good image on both plain paper and a recording medium for only ink jet recording

Ohtsuka discloses:

- **regarding claim 28**, a display portion for displaying all the types of printing media useable in printing apparatus (Column 20, Lines 39-52; Column 21, Lines 7-13); displaying reference information for selecting the printing medium on which the image is printed on the basis of the type of ink discriminated by the discriminating step (Column 4, Lines 22 – 38; Column 20, Lines 39 – 52; Column 21, Lines 7 – 13),
- a selection portion for selecting, from the plurality of types of printing media displayed by display portion, the type of printing medium used for printing (Column 4, Lines 22-38; Column 20, Lines 39-52; Column 21, Lines 7-13), for the purpose of selecting an appropriate combination of a type of output image, ink and a print medium.
- warning means for issuing a warning when the type of said printing medium selected by said selection portion does not have the applicability relation stored in said storage portion with the types of said printing material discriminated by the discrimination portion (Column 3, Lines 63-67), for the purpose of selecting an appropriate combination of a type of output image, ink and a print medium

Mizutani discloses:

- **regarding claim 28**, determining means (Figure 2, D) for determining the type of the printing medium, as a printing medium to be used for the printing (Abstract; Column 2, Lines 37-50), for the purpose of producing a print output of a high contrast and high color reproducibility onto any kind of print papers.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Ohtsuka and Mizutani into the

device of Irizawa, for the purpose of selecting an appropriate combination of a type of output image, ink and a print medium and producing a print output of a high contrast and high color reproducibility onto any kind of print papers.

Claims 36-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irizawa et al (U.S. Pub. 2003/0085956) as modified by Ohtsuka et al (U.S. Pat. 6,145,950), and Hayashi (JP 11001647A) as applied to claims 26,29,30,32, 34-35 above, and further in view of Reed (U.S. Pat. 6,375,314), Kamada et al (U.S. Pat. 6,128,098), and Katsen (U.S. Pat. 5,803,958).

Irizawa as modified by Ohtsuka and Hayashi does not disclose expressly the following:

- ***regarding claims 36-41***, wherein the printing medium having the applicability relations with both the pigment ink and the dye ink includes a gross paper; wherein the printing medium having the applicability relation with the pigment ink but not having the applicability relation with the dye ink includes a synthetic paper; and wherein the printing medium having the applicability relation with the dye ink but not having the applicability relation with the pigment ink includes a back print film

Reed discloses:

- ***regarding claims 36-41***, wherein the printing medium having the applicability relations with both the pigment ink and the dye ink includes a gross paper (Column 2, Lines 44-50), for the purpose of facilitating use of a printer

Kamada discloses:

- **regarding claims 36-41**, wherein the printing medium having the applicability relation with the dye ink but not having the applicability relation with the pigment ink includes a back print film (Column 12, Lines 38-44), for the purpose of providing a ink with high penetration characteristics. It is well known in the art when printing on the surface of back print film it is necessary for ejected ink to penetrate into the printing material sufficiently when the printing material is printed.

Katsen discloses:

- **regarding claims 36-41**, wherein the printing medium having the applicability relation with the pigment ink but not having the applicability relation with the dye ink includes a synthetic paper (Column 1, Lines 20-26; Lines 31-37), for the purpose of avoiding drawbacks from the use of dye containing inks.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Reed, Kamada, and Katsen into the device of Irizawa as modified by Ohtsuka and Hayashi.

Response to Arguments

Applicant's arguments filed 5/14/2007 have been fully considered but they are not persuasive. Regarding claims 26-35 applicant argues that Ohtsuka does not disclose validating received paper as the printing medium to be used for printing the image. However Ohtsuka discloses that once the ID number of the attached ink cartridge is determined the process refers to a LUT that shows the appropriate combinations of the ink cartridge ID's, types of output images, and the types of print

media. Next, in accordance with the ID of the attached ink cartridge and the result of reference to the LUT, print medium-media and types of output image appropriate to printing by using the attached ink cartridge are selected and the results of the selection are shown/displayed (Figures 25-27; Column 21, Lines 7-13; 22-28). During the selection of the appropriate combinations of the ink cartridge ID's, types of output image and the types of print media, the print media/receiving paper is validated. The selection process will only display the types of media that are appropriate/validated for the attached ink cartridge. Thus Ohtsuka discloses claims 26-35 as claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

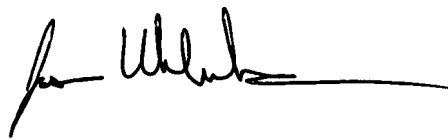
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSU
July 13, 2007



STEPHEN MEIER
SUPERVISORY PATENT EXAMINER